**Name of Journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 50117

**Manuscript Type:** CASE REPORT

**Adenomyoma of the distal common bile duct demonstrated by endoscopic ultrasound: A case report and review of the literature**

Xu LM *et al*. Distal common bile duct adenoma

Li-Ming Xu, Duan-Min Hu, Wen Tang, Shao-Hua Wei, Wei Chen, Guang-Qiang Chen

**Li-Ming Xu,** **Duan-Min Hu,** Department of Gastroenterology, The Second Affiliated Hospital of Soochow University, Suzhou 215004, Jiangsu Province, China

**Wen Tang,** Endoscopy Center, The Second Affiliated Hospital of Soochow University, Suzhou 215000, Jiangsu Province, China

**Shao-Hua Wei, Wei Chen,** Department of Hepatological Surgery,The Second Affiliated Hospital of Soochow University, Suzhou 215000, Jiangsu Province, China

**Guang-Qiang Chen,** Imaging Department, The Second Affiliated Hospital of Soochow University, Suzhou 215000, Jiangsu Province, China

**ORCID number:** Li-Ming Xu (0000-0002-9850-7537), Duan-Min Hu (0000-0001-5646-4769), Wen Tang (0000-0002-7689-0180); Shao-Hua Wei (0000-0002-5542-2353); Wei Chen (0000-0002-6248-0615); Guang-Qiang Chen (0000-0001-7088-8090).

**Author contributions:** Xu LM was responsible for interpretation of the clinical data and drafting of the manuscript; Hu DM conceived the case report and revised the manuscript; Tang W revised the manuscript for important intellectual content; Wei SH and Chen W were in charge of the operation; Chen GQ provided the figures showing the computed tomography and magnetic resonance imaging findings.

**Supported by** The Program for Diagnostic and Therapeutic Technique of Clinically Important Disease in Suzhou, No. LCZX201707; and Program for GUSU Medicine Talents, No. GSWS2019012.

**Informed consent statement:** Writteninformed consent was obtained from the patient.

**Conflict-of-interest statement:** The authors declare no conflicts of interest.

**CARE Checklist (2016) statement:** The authors have read the CARE Checklist (2016), and the manuscript was prepared and revised according to the CARE Checklist (2016).

**Open-Access:** This article is an open-access article that was selected by an in-house editor and fully peer-reviewed by external reviewers. It is distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/

**Manuscript source:** Unsolicited manuscript

**Corresponding author: Duan-Min Hu, PhD, Chief Doctor, Director,** Department of Gastroenterology, The Second Affiliated Hospital of Soochow University, No. 1055, Sanxiang Road, Suzhou 215004, Jiangsu Province, China. huduanmins@126.com

**Telephone:** +86-512-66784805

**Received:** July 4, 2019

**Peer-review started:** July 16, 2019

**First decision:** September 9, 2019

**Revised:** September 20, 2019

**Accepted:** October 5, 2019

**Article in press:** October 5, 2019

**Published online:** November 6, 2019

**Abstract**

***BACKGROUND***

Adenomyomatous hyperplasia of the distal common bile duct (CBD) is very rare, with only scarce case reports in the literature. Diagnosis is usually based on imaging findings, and endoscopic biopsy is very difficult before operation. It is believed that adenomyomatous hyperplasia has little or no risk of malignant transformation.

***CASE SUMMARY***

A 68-year-old woman with abdominal pain in the right upper quadrant was referred to our hospital. Abdominal ultrasonography in the emergency ward revealed acute cholecystitis and dilated CBD. Laboratory findings showed elevated levels of transaminases, phosphatase, and γ-glutamyltranspeptidase. Pharmaceutical treatment for 3 d did not relieve the symptoms. Magnetic resonance cholangiopancreatography (MRCP) and computed tomography (CT) showed proximal bile duct dilatation but could not identify the cause. Endoscopic ultrasonography (EUS) demonstrated a mixed echogenic mass in the distal CBD. During surgery, a firm mass was found in the distal CBD and the Whipple procedure was performed with the initial concern of malignancy. Histology showed diffuse adenomyomatous hyperplasia.

***CONCLUSION***

EUS may be a useful choice to diagnose adenomyoma of the distal CBD before operation, especially in patients with ambiguous MRCP/CT findings.

**Key words:** Adenomyoma; Common bile duct; Endoscopic ultrasound; Diagnosis; Case report

**© The Author(s) 2019.** Published by Baishideng Publishing Group Inc. All rights reserved.

**Core tip:** The distal common bile duct is an extremely rare site of adenomyomatous hyperplasia. Diagnosis is usually based on imaging findings, and endoscopic biopsy is difficult before operation. We present here a rare case of adenomyomatous hyperplasia of the distal common bile duct demonstrated by endoscopic ultrasound, which revealed a nodular change and bile duct wall thickening. We concluded that the mass was a benign, non-neoplastic lesion. This case highlights how endoscopic ultrasound may be a useful choice for the diagnosis of adenomyoma of the distal common bile duct, especially in patients with ambiguous magnetic resonance cholangiopancreatography/computed tomography findings.

Xu LM, Hu DM, Tang W, Wei SH, Chen W, Chen GQ. Adenomyoma of the distal common bile duct demonstrated by endoscopic ultrasound: A case report and review of the literature. *World J Clin Cases* 2019; 7(21): 3615-3621

**URL:** https://www.wjgnet.com/2307-8960/full/v7/i21/3615.htm

**DOI:** https://dx.doi.org/10.12998/wjcc.v7.i21.3615

**INTRODUCTION**

Most of adenomyomas are located in the gallbladder, stomach, duodenum, and jejunum[1-5]. The distal common bile duct (CBD) is an extremely rare site of adenomyomatous hyperplasia[1,5,6], and here we report here our experience with such a case. For our case, histology demonstrated glandular structures that were surrounded by a fibroblastic or myofibroblastic proliferation. Reported symptoms for these rare cases are nonspecific and include jaundice, abdominal pain, nausea, vomiting, dysphagia, and unintentional weight loss[1,3,7]. A dilated CBD is common and sometimes presents intermittently in the adenomyoma of the Vaterian system[1,3]. It can be very difficult to distinguish an adenomyoma from a malignancy before operation; this is a valid concern as adenomyomas have little or no risk of malignant transformation[8-10]

**CASE PRESENTATION**

***Chief complaints***

A 68-year-old woman with abdominal pain located in the right upper quadrant was referred to our hospital. Abdominal ultrasonography (US) performed in the emergency ward revealed stones in the gallbladder, with acute cholecystitis and dilated CBD.

***History of present illnes****s*

The patient’s symptoms had begun 5 h prior to presentation at the hospital. The patient reported no vomiting or fever. Upon hospital admission, the initial treatment with antibiotics and anticholinergic did not relieve the symptoms.

***History of past illness***

The patient had a history of hypertension and appendectomy. She was allergic to penicillin.

***Personal and family history***

The patient had no habits of tobacco or alcohol intake. There were no risk factors for common diseases in the family history.

***Physical examination upon admission***

On admission, the patient’s temperature was 36.5 °C, heart rate was 85 beats per min, respiratory rate was 18 breaths per min, and blood pressure was 120/70 mmHg. Routine abdominal examination revealed tenderness and rebound tenderness in the right upper quadrant. There was no shifting dullness. Normal active intestinal sounds were heard. There was no jaundice of the sclera or skin. There were no significant findings from palpation of the lymph nodes and no edema. Lung and heart auscultation was negative.

***Laboratory examination***

Laboratory tests were conducted and the results were as follows: White blood cell count, 5.7 × 10³/μL; neutrophil count, 4.7 × 10³/μL; hemoglobin, 12.7 g/dL; platelet count, 182 × 10³/μL; total bilirubin/direct bilirubin, 18.7/9.5 μmol/L; aspartate aminotransferase/alanine aminotransferase, 540/482 U/L; alkaline phosphatase/γ-glutamyltranspeptidase, 111/175 U/L; amylase/lipase, 54/34 U/L; C-reactive protein 58.8 mg/L; carcinoembryonic antigen, 2.03 ng/mL; carbohydrate antigen 19-9, 76.11 U/mL; and carbohydrate antigen 50, 30.46 IU/mL. Hepatitis tests showed positivity for hepatitis B surface, e, and core antibodies. Symptoms were not relieved after 3 d of pharmaceutical treatments (reductive glutathione at 2.4 qdivgtt; ceftizoxime at 2.0 bid ivgtt). Laboratory findings showed decreased levels of transaminases (192/103 U/L) and elevated levels of phosphatase (203 U/L) and γ-glutamyltranspeptidase (496 U/L).

***Imaging examinations***

Magnetic resonance cholangiopancreatography (MRCP) showed proximal bile duct dilatation, with the diameter being 17.5 mm (Figure 1A). 128-row multi-detector computed tomography (CT) and magnetic resonance imaging of the abdomen were consistent, showing diffused dilatation of the extra-hepatic bile duct and significantly enhanced bile duct wall (Figure 1B). Endoscopic US (EUS) was performed for the evaluation of distal CBD obstruction, which demonstrated a mixed echogenic structure (low-mild amplitude echoes, 7.1 mm × 6.6 mm) in the distal CBD (Figure 2).

**FINAL DIAGNOSIS**

The final diagnosis prior to surgery was neoplasm of the distal CBD.

**TREATMENT**

In accordance with the diagnosis, the patient agreed to undergo surgery. During the operation, a 7 mm × 7 mm sized, firm mass was found in the distal CBD near the ampulla of Vater. The surgeon performed radical pancreaticoduodenectomy by the Whipple procedure and cholecystectomy, having concern of a malignant tumor.

**OUTCOME AND FOLLOW-UP**

The gross specimen appeared as an irregular mass, measuring 1 cm and having an obscure boundary (Figure 3). For resection, the tumor was separated from the surrounding duodenum and pancreas. Histology of the specimen showed diffuse adenomyomatous hyperplasia of the distal CBD and acute cholecystitis. All the regional lymph nodes showed reactive hyperplasia. No evidence of vascular or perineural neoplastic invasion was observed (Figure 4). The diagnosis of adenomyoma was finally confirmed and no adjuvant therapy was needed.

**DISCUSSION**

The overall accuracy for preoperative histopathological diagnosis is 62% for tumors in the papilla of Vater[11]. Diagnosis of adenomyomas of the CBD is usually based on imaging findings and endoscopic biopsy is difficult[5]. CBD dilation is demonstrated by US, CT, and MRCP in the cases of obstructive jaundice[12,13]. Although noninvasive and inexpensive, US-provided diagnosis can be operator-dependent (according to an operator’s experience). CT has a lower sensitivity and accuracy in differentiating adenomyomatosis and gallbladder cancer[14].

Endoscopic retrograde cholangiopancreatography (ERCP), another imaging option, is considered the gold standard for the diagnosis of distal CBD abnormalities[15-17]. However, it may induce severe complications such as post-ERCP pancreatitis[18]. MRCP and EUS are less invasive and useful in diagnosing malignancy and choledocholithiasis in the dilated biliary tree[19,20]. Studies have shown that MRCP and EUS are comparable[20,21]. When MRCP findings are negative in the presence of dilated CBD, EUS provides better visualization of the biliary obstruction because its transducer is close enough to the CBD in the duodenum[[22](#_ENREF_22)]. Patel *et al*[23] preferred EUS rather than ERCP as the initial investigation in patients with a probability of choledocholithiasis. Endosonography may also be useful in the evaluation of cholangiocarcinoma[24]. Chon *et al*[25] considered EUS a key method for investigating biliary disorders of unknown reason.

In our patient, EUS revealed that the lesion was a nodular change with mixed echo, with the bile duct wall being thickened and enhanced. We concluded that it was a benign, non-neoplastic lesion but one not reported in the literature according to the best of our knowledge. There have been no long-term studies reported with large sample size for adenomyomatous hyperplasia of the CBD. The prognosis of the lesion is expected to be similar to that of the gallbladder, based upon the histological similarity[9]. EUS shows adenomyoma of the gallbladder with hyper and mixed echogenecity and the well-preserved multiple-layer pattern of the wall[26], which is similar to the findings in our patient’s mass. We regret that we did not perform fine needle aspiration (FNA) and then ERCP. The sensitivity of EUS-FNA for diagnosis of malignancy is 66%[27]. The sensitivity of ERCP with brush cytology and intra-ductal biopsy is 45% and 48.1%, respectively[27]. De Moura *et al*[28] reported that EUS-FNA was superior to ERCP with brush cytology for diagnosing malignant biliary strictures. If such was diagnosed definitively as adenomyoma, endoscopic treatments like drainage or local resection should be performed, as they carry less risk for complications than the radical surgical procedure[5,6]. Meanwhile, the method of EUS-guided biliary drainage might be a primary alternative in patients with malignant obstruction[29,30].

**CONCLUSION**

EUS is an important diagnostic modality that can help establish the diagnosis of adenomyomatous hyperplasia in patients with dilated CBD and ambiguous MRCP findings. We expect that the EUS image can be a useful choice to diagnose adenomyoma of the distal CBD. Moreover, EUS-FNA biopsy could be taken from the adenomyoma for further histopathological examination.

**REFERENCES**

1 **Läuffer JM**, Baer HU, Maurer CA, Fröhling S, Scheurer U, Zimmermann A, Büchler MW. Adenomyoma of the distal common bile duct mimicking cholangiocarcinoma. *Dig Dis Sci* 1998; **43**: 1200-1204 [PMID: 9635608 DOI: 10.1023/A:1018843421292]

2 **Colović R**, Micev M, Marković J, Zogović S, Colović N, Stojković M. Adenomyoma of the common hepatic duct. *HPB (Oxford)* 2002; **4**: 187-190 [PMID: 18332953 DOI: 10.1080/13651820260503864]

3 **Handra-Luca A**, Terris B, Couvelard A, Bonte H, Flejou JF. Adenomyoma and adenomyomatous hyperplasia of the Vaterian system: clinical, pathological, and new immunohistochemical features of 13 cases. *Mod Pathol* 2003; **16**: 530-536 [PMID: 12808057 DOI: 10.1097/01.mp.0000073525.71096.8f]

4 **Kwon TH**, Park DH, Shim KY, Cho HD, Park JH, Lee SH, Chung IK, Kim HS, Park SH, Kim SJ. Ampullary adenomyoma presenting as acute recurrent pancreatitis. *World J Gastroenterol* 2007; **13**: 2892-2894 [PMID: 17569131 DOI: 10.3748/wjg.v13.i20.2892]

5 **Iwaki K**, Shibata K, Ohta M, Endo Y, Uchida H, Tominaga M, Okunaga R, Kai S, Kitano S. Adenomyomatous hyperplasia of the common bile duct: report of a case. *Surg Today* 2008; **38**: 85-89 [PMID: 18085373 DOI: 10.1007/s00595-007-3558-9]

6 **Choi JH**, Lee SH, Kim JS, Kim J, Shin BS, Jang DK, Ryu JK, Kim YT. A Case of Adenomyomatous Hyperplasia of the Distal Common Bile Duct Mimicking Malignant Stricture. *Korean J Gastroenterol* 2016; **67**: 332-336 [PMID: 27312835 DOI: 10.4166/kjg.2016.67.6.332]

7 **Choi YH**, Kim MJ, Han JH, Yoon SM, Chae HB, Youn SJ, Kang MH, Sung R, Choi JW, Park SM. Clinical, pathological, and immunohistochemical features of adenomyoma in the ampulla of vater. *Korean J Gastroenterol* 2013; **62**: 352-358 [PMID: 24365734]

8 **Singh DK**, Rastogi A, Sakhuja P, Gondal R. Adenomyoma of common bile duct arising in a type I choledochal cyst. *Indian J Pathol Microbiol* 2011; **54**: 365-367 [PMID: 21623092 DOI: 10.4103/0377-4929.81640]

9 **Kim JH**, Jeong IH, Han JH, Kim JH, Hwang JC, Yoo BM, Kim JH, Kim MW, Kim WH. Clinical/pathological analysis of gallbladder adenomyomatosis; type and pathogenesis. *Hepatogastroenterology* 2010; **57**: 420-425 [PMID: 20698201]

10 **Patel S**, Slade J, Jakate S. An Unusual Case of Noninvasive Adenocarcinoma Arising in a Localized Adenomyoma of the Gallbladder and Review of Literature. *Int J Surg Pathol* 2016; **24**: 341-346 [PMID: 26721302 DOI: 10.1177/1066896915620011]

11 **Menzel J**, Poremba C, Dietl KH, Böcker W, Domschke W. Tumors of the papilla of Vater--inadequate diagnostic impact of endoscopic forceps biopsies taken prior to and following sphincterotomy. *Ann Oncol* 1999; **10**: 1227-1231 [PMID: 10586341 DOI: 10.1023/a:1008368807817]

12 **Sotoudehmanesh R**, Nejati N, Farsinejad M, Kolahdoozan S. Efficacy of Endoscopic Ultrasonography in Evaluation of Undetermined Etiology of Common Bile Duct Dilatation on Abdominal Ultrasonography. *Middle East J Dig Dis* 2016; **8**: 267-272 [PMID: 27957289 DOI: 10.15171/mejdd.2016.35]

13 **Holm AN**, Gerke H. What should be done with a dilated bile duct? *Curr Gastroenterol Rep* 2010; **12**: 150-156 [PMID: 20424988 DOI: 10.1007/s11894-010-0094-3]

14 **Bang SH**, Lee JY, Woo H, Joo I, Lee ES, Han JK, Choi BI. Differentiating between adenomyomatosis and gallbladder cancer: revisiting a comparative study of high-resolution ultrasound, multidetector CT, and MR imaging. *Korean J Radiol* 2014; **15**: 226-234 [PMID: 24643351 DOI: 10.3348/kjr.2014.15.2.226]

15 **Cohen S**, Bacon BR, Berlin JA, Fleischer D, Hecht GA, Loehrer PJ Sr, McNair AE Jr, Mulholland M, Norton NJ, Rabeneck L, Ransohoff DF, Sonnenberg A, Vannier MW. National Institutes of Health State-of-the-Science Conference Statement: ERCP for diagnosis and therapy, January 14-16, 2002. *Gastrointest Endosc* 2002; **56**: 803-809 [PMID: 12447289 DOI: 10.1067/mge.2002.129875]

16 **Chen WX**, Zhang Y, Li YM, Xu GQ, Fang Y, Cai SP. Endoscopic retrograde cholangiopancreatography in evaluation of choledochal dilatation in patients with obstructive jaundice. *Hepatobiliary Pancreat Dis Int* 2002; **1**: 111-113 [PMID: 14607637]

17 **Rafiullah**, Tanimu S. Adenomyomatous hyperplasia of the ampulla of Vater presenting as acute pancreatitis. *BMJ Case Rep* 2014; **2014**: bcr2013203151 [PMID: 24604802 DOI: 10.1136/bcr-2013-203151]

18 **Nalankilli K**, Kannuthurai S, Moss A. A modern approach to ERCP: maintaining efficacy while optimising safety. *Dig Endosc* 2016; **28 Suppl 1**: 70-76 [PMID: 26684277 DOI: 10.1111/den.12592]

19 **Adler DG**, Baron TH, Davila RE, Egan J, Hirota WK, Leighton JA, Qureshi W, Rajan E, Zuckerman MJ, Fanelli R, Wheeler-Harbaugh J, Faigel DO; Standards of Practice Committee of American Society for Gastrointestinal Endoscopy. ASGE guideline: the role of ERCP in diseases of the biliary tract and the pancreas. *Gastrointest Endosc* 2005; **62**: 1-8 [PMID: 15990812 DOI: 10.1016/j.gie.2005.04.015]

20 **Fernández-Esparrach G**, Ginès A, Sánchez M, Pagés M, Pellisé M, Fernández-Cruz L, López-Boado MA, Quintó L, Navarro S, Sendino O, Cárdenas A, Ayuso C, Bordas JM, Llach J, Castells A. Comparison of endoscopic ultrasonography and magnetic resonance cholangiopancreatography in the diagnosis of pancreatobiliary diseases: a prospective study. *Am J Gastroenterol* 2007; **102**: 1632-1639 [PMID: 17521400 DOI: 10.1111/j.1572-0241.2007.01333.x]

21 **Tse F**, Liu L, Barkun AN, Armstrong D, Moayyedi P. EUS: a meta-analysis of test performance in suspected choledocholithiasis. *Gastrointest Endosc* 2008; **67**: 235-244 [PMID: 18226685 DOI: 10.1016/j.gie.2007.09.047]

22 **Rana SS**, Bhasin DK, Sharma V, Rao C, Gupta R, Singh K. Role of endoscopic ultrasound in evaluation of unexplained common bile duct dilatation on magnetic resonance cholangiopancreatography. *Ann Gastroenterol* 2013; **26**: 66-70 [PMID: 24714761]

23 **Patel R**, Ingle M, Choksi D, Poddar P, Pandey V, Sawant P. Endoscopic Ultrasonography Can Prevent Unnecessary Diagnostic Endoscopic Retrograde Cholangiopancreatography Even in Patients with High Likelihood of Choledocholithiasis and Inconclusive Ultrasonography: Results of a Prospective Study. *Clin Endosc* 2017; **50**: 592-597 [PMID: 28793395 DOI: 10.5946/ce.2017.010]

24 **De Angelis C**, Marietti M, Bruno M, Pellicano R, Rizzetto M. Endoscopic ultrasound in common bile duct dilatation with normal liver enzymes. *World J Gastrointest Endosc* 2015; **7**: 799-805 [PMID: 26191344 DOI: 10.4253/wjge.v7.i8.799]

25 **Chon HK**, Kim TH. A case of biliary fascioliasis mimicking a common bile duct tumor (with video). *Endosc Ultrasound* 2017; **6**: 145-146 [PMID: 28440243 DOI: 10.4103/eus.eus\_5\_17]

26 **Kim HJ**, Park JH, Park DI, Cho YK, Sohn CI, Jeon WK, Kim BI, Choi SH. Clinical usefulness of endoscopic ultrasonography in the differential diagnosis of gallbladder wall thickening. *Dig Dis Sci* 2012; **57**: 508-515 [PMID: 21879282 DOI: 10.1007/s10620-011-1870-0]

27 **Navaneethan U**, Njei B, Lourdusamy V, Konjeti R, Vargo JJ, Parsi MA. Comparative effectiveness of biliary brush cytology and intraductal biopsy for detection of malignant biliary strictures: a systematic review and meta-analysis. *Gastrointest Endosc* 2015; **81**: 168-176 [PMID: 25440678 DOI: 10.1016/j.gie.2014.09.017]

28 **De Moura DTH**, Moura EGH, Bernardo WM, De Moura ETH, Baraca FI, Kondo A, Matuguma SE, Almeida Artifon EL. Endoscopic retrograde cholangiopancreatography versus endoscopic ultrasound for tissue diagnosis of malignant biliary stricture: Systematic review and meta-analysis. *Endosc Ultrasound* 2018; **7**: 10-19 [PMID: 27824027 DOI: 10.4103/2303-9027.193597]

29 **Baars JE**, Kaffes AJ, Saxena P. EUS-guided biliary drainage: A comprehensive review of the literature. *Endosc Ultrasound* 2018; **7**: 4-9 [PMID: 29451164 DOI: 10.4103/eus.eus\_105\_17]

30 **Ge N**, Hu J, Sun S, Linghu E, Jin Z, Li Z. Endoscopic Ultrasound-guided Pancreatic Pseudocyst Drainage with Lumen-apposing Metal Stents or Plastic Double-pigtail Stents: A Multifactorial Analysis. *J Transl Int Med* 2017; **5**: 213-219 [PMID: 29340278 DOI: 10.1515/jtim-2017-0036]

**P-Reviewer:** Chandrakesan P, Raisch KP **S-Editor:** Wang JL **L-Editor:** Wang TQ **E-Editor:**

**Specialty type:** Medicine, Research and Experimental

**Country of origin:** China

**Peer-review report classification**

Grade A (Excellent): A

Grade B (Very good): B

Grade C (Good): 0

Grade D (Fair): 0

Grade E (Poor): 0

A



B



**Figure 1 Magnetic resonance cholangiopancreatography and computed tomography images from our case.** A: Magnetic resonance cholangiopancreatography image showing proximal bile duct dilatation but ambiguous findings for evaluation of the distal common bile duct; B: Computed tomography images showing diffused dilatation of the extra-hepatic bile duct and significantly enhanced bile duct wall.



**Figure 2 Endoscopic ultrasound image demonstrating a mixed echogenic structure in the distal common bile duct.**



**Figure 3 The gross specimen appearance of an irregular mass of the distal common bile duct near the papilla.**



**Figure 4 Histological findings from our case.** The histological features of the resected mass arehyperplastic glandular lobules were surrounded by hyperplastic muscle fibers, fibroblasts, and myofibroblasts (Hematoxylin and eosin staining, ×200 magnification).